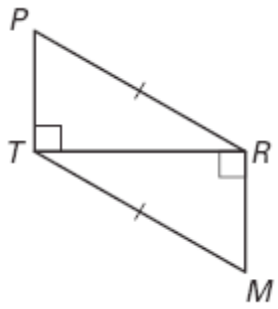
Pre-AP Geometry Date_____ 4.6 Assignment
Isosceles, Equilateral, and Right triangles (pp 236-238)
Omit 6, 11, 12, 15-17, 19, 20

1. What is your name?

Decide whether enough information is given to prove that the triangles are congruent. Explain your answer.

2.



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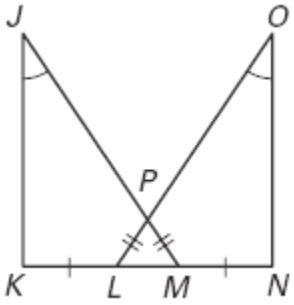

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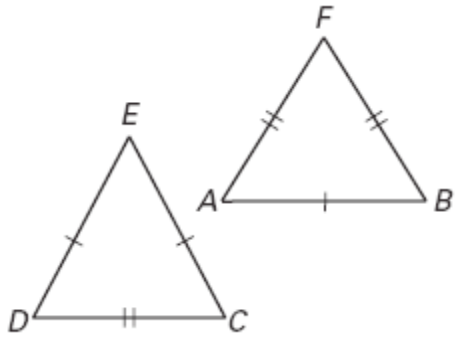

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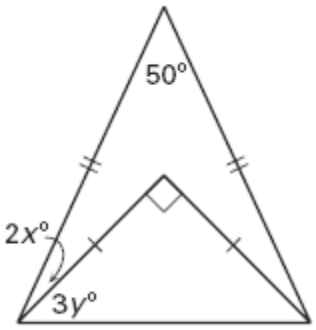
Solve for *x* and *y*.

5.



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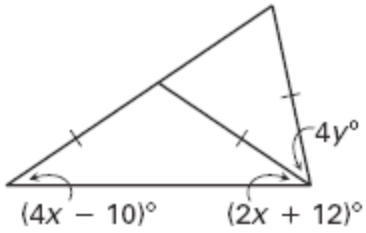

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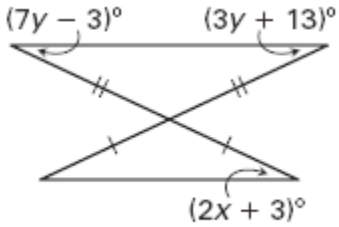

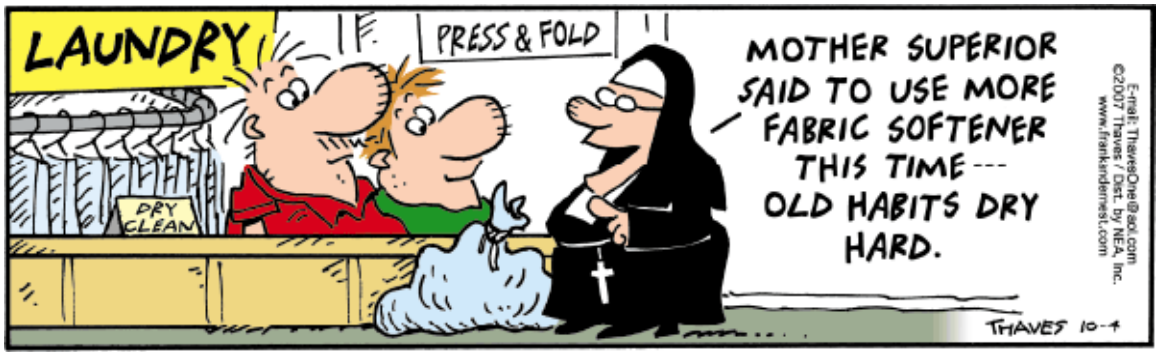

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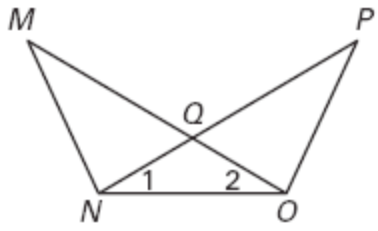
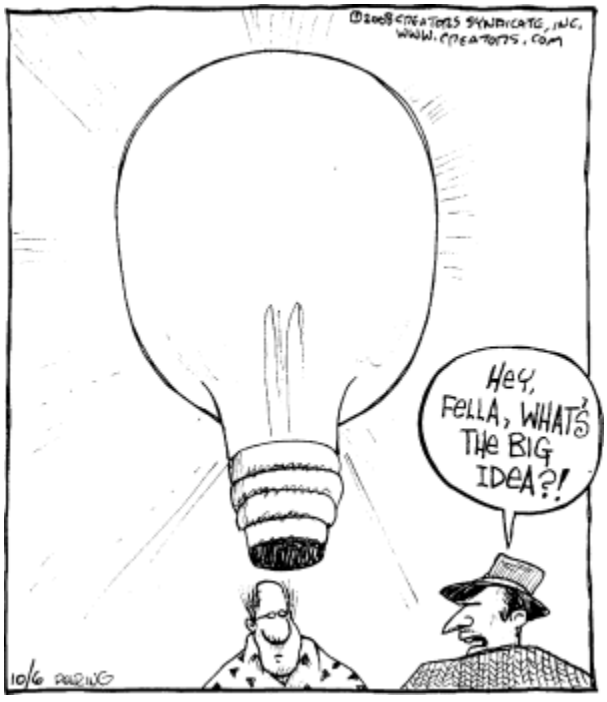
Write a two-column or a paragraph proof.

8. Given: $\overline{MQ} \cong \overline{PQ}$

$\measuredangle 1 \cong \measuredangle 2$

Prove: $\overline{MN} \cong \overline{PO}$

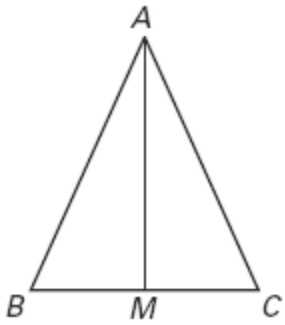




Given: $\overline{AB} \cong \overline{AC}$

9. M is the midpoint of $\overline{BC}$.

Prove: $\overline{AM}$ bisects $\measuredangle BAC$.



"We kept him in the penalty box too long. He's developed Stockholm Syndrome."

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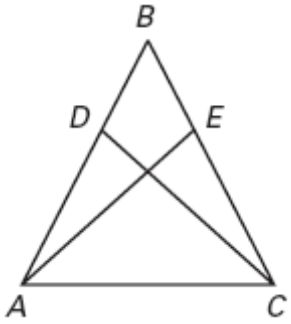
10. Given: $\measuredangle BAC \cong \measuredangle BCA$

$\overline{BD} \cong \overline{BE}$

Prove: $\measuredangle BDC \cong \measuredangle BEA$



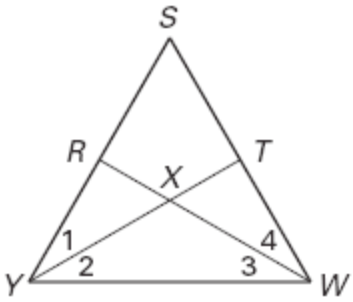
"71...72...73...Come on! Feel the burn!"

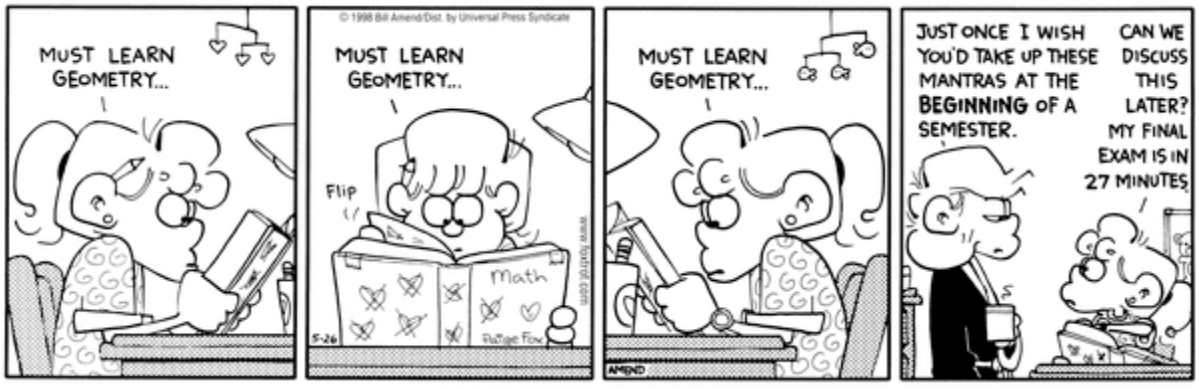
11. Given: $\overline{SY} \cong \overline{SW}$

$\overline{YT}$ bisects $\measuredangle SYW$.

$\overline{WR}$ bisects $\measuredangle SWY$.

Prove: $\triangle RXY \cong \triangle TXW$





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Review.

Use the Distance Formula to decide whether $\overline{AB} \cong \overline{AC}$. *(Chapter 1 Section 3)*

12. $A(0,-4)$, $B(5,8)$, $C(-12,1)$

13. $A(0,0)$, $B(-6,-10)$, $C(6,10)$

14. $A(1,-1)$, $B(-8,7)$, $C(8,7)$

Find the coordinates of the midpoint of a segment with the given endpoints. *(Chapter 1 Section 5)*

15. G(0, 11) & H(8, -3)

16. G(0, -13) & H(2, -1)

17. L(1, 7) & M(-5, -5)

18. L(-3, -5) & M(0, -20)

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Line *j* is perpendicular to the line with the given equation and line *j* passes through point *P*. Write an equation of line *j*. *(Chapter 3 Section 7)*

19. y = -3x – 4; P(1, 1)

20. $y = -\frac{10}{9}x + 3;\ P(5, -12)$

21. y = x – 7 P(0, 0)

22. $y = \frac{2}{5}x + 4;\ P(-3, 4)$